

INTISARI

PERBEDAAN PERUBAHAN ANGKA TROMBOSIT PADA PENDERITA SIROSIS HATI YANG DITERAPI DENGAN SIMVASTATIN 10 mg DIBANDINGKAN DENGAN SIMVASTATIN 20 mg

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Latar Belakang. Angka trombosit yang menurun pada sirosis hati, akibat dari kegagalan fungsi hati yang menyebabkan penurunan kadar trombopoetin dan adanya hipertensi porta yang mengakibatkan terjadinya sekuestrasi splenik dan peningkatan dekstruksi trombosit. Pemberian simvastatin pada pasien sirosis hati diketahui memperbaiki disfungsi endotel pada pembuluh darah hati, menurunkan tingkat fibrosis dan hipertensi porta sehingga dapat memperbaiki fungsi hati. Pemberian simvastatin 20 mg selama 1 bulan pada sirosis hati terbukti dapat menurunkan hipertensi porta namun belum dapat memperbaiki sintesis hati.

Tujuan Penelitian. Mengetahui perbedaan perubahan angka trombosit pada penderita sirosis hati yang diterapi dengan simvastatin 10 mg dibandingkan simvastatin 20 mg selama 3 bulan.

Metode. Desain penelitian menggunakan uji klinis acak tersamar ganda dilaksanakan di poli gastroenterohepatologi RSUP Dr. Sardjito Yogyakarta mulai Januari hingga Juni 2018 yang memenuhi kriteria inklusi dan eksklusi. Subyek dirandomisasi menjadi kelompok yang diberikan simvastatin 10 mg dan simvastatin 20 mg selama 3 bulan. Dilakukan pemeriksaan angka trombosit tiap bulan selama 3 bulan dan monitoring konsumsi obat dan efek samping. Analisa data numerik menggunakan *T test* tidak berpasangan, *Man Whitney tes* dan *Kruskal Wallis*. Analisa data kategorik dengan menggunakan *Fisher test*, *Chi-Square test*. Perubahan angka trombosit antar waktu tiap pengukuran tiap kelompok dianalisa dengan *Wilcoxon*.

Hasil Penelitian. Dilakukan analisa statistik terhadap kelompok simvastatin 10 mg (n=21 subyek) dan kelompok simvastatin 20 mg (n=17 subyek). Perubahan angka trombosit awal dengan akhir bulan penelitian pada kelompok simvastatin 10 mg dibandingkan kelompok simvastatin 20 mg yaitu $2 \times 10^3/\mu\text{L}$ ($-159 \times 10^3/\mu\text{L}$ - $98 \times 10^3/\mu\text{L}$) vs $-5 \times 10^3/\mu\text{L}$ ($-31 \times 10^3/\mu\text{L}$ - $20 \times 10^3/\mu\text{L}$) dengan nilai $p=0,311$.

Kesimpulan. Tidak terdapat perbedaan perubahan angka trombosit pada akhir penelitian pasien sirosis hati yang di berikan terapi simvastatin 10 mg/hari di bandingkan dengan simvastatin 20 mg/hari selama 3 bulan

Kata Kunci : Sirosis hati, angka trombosit, simvastatin

ABSTRACT

THE DIFFERENCE OF PLATELET COUNT CHANGES AMONG LIVER CIRRHOTIC PATIENTS TREATED WITH SIMVASTATIN 10 mg COMPARED TO SIMVASTATIN 20 mg

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Background. Decreased platelet count in liver cirrhosis, due to liver function failure results in lower thrombopoietin levels and the presence of portal hypertension results in splenic sequestration and increased platelet destruction. Treatment of simvastatin in patients with liver cirrhosis has been known to improve endothelial dysfunction in hepatic blood vessels, reduce fibrosis level and portal hypertension, thus improving liver function. Treatment of simvastatin 20 mg for 1 month in patients with liver cirrhosis has been suggested to reduce portal hypertension but has not been able to improve liver synthesis.

Objective. To assess the difference in platelet count changes among liver cirrhotic patients treated with simvastatin 10 mg compared to simvastatin 20 mg for 3 months period.

Methods. A double blind randomized clinical trial was conducted at the Gastroenterohepatology outpatient clinic of Dr. Sardjito General Hospital Yogyakarta between January and June 2018. Patients who met the inclusion and exclusion criteria were recruited as study subjects. These subjects were then randomized into one of two groups, simvastatin 10 mg group and simvastatin 20 mg group for 3 months. Platelet count tests were performed every month for 3 months period and drug consumption and adverse effects were monitored. Numerical data were analyzed using unpaired T test, Man Whitney test or Kruskal Wallis. Meanwhile, categorical data were analyzed using the Fisher test or Chi-Square test. Changes in platelet count between each measurement in each group were analyzed and compared by Wilcoxon test.

Results. Statistical analysis were performed for simvastatin group 10 mg (n = 21 subjects) and simvastatin group 20 mg (n = 17 subjects). Changes between pre- and post-treatment platelet count in the simvastatin 10 mg group compared to the simvastatin 20 mg group were $2 \times 10^3/\mu\text{L}$ ($-159 \times 10^3/\mu\text{L}$ - $98 \times 10^3/\mu\text{L}$) vs $-5 \times 10^3/\mu\text{L}$ ($-31 \times 10^3/\mu\text{L}$ - $20 \times 10^3/\mu\text{L}$) with p value = 0.311.

Conclusion. There was no significant difference in platelet count changes at the end of the study of liver cirrhotic patients treated with simvastatin 10 mg/day compared with simvastatin 20 mg/day for treatment period of 3 months

Keywords: Liver cirrhosis, platelet count, simvastatin